

I/We Claim:

1. An electrical connector, comprising:

a first connector member having a first contact;

a second connector member having a groove and a

5 second contact for electrical connection with the first contact; and

a locking ring disposed on the first connector member, the locking ring having latching fingers that engage the groove when the first connector member and the second connector member are mated to lock the first connector member to the second connector member, the latching fingers being of at least a first type and a second type, the first type having a different length than the second type.

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2. The electrical connector according to claim 1, wherein the first type is formed at a different angle with respect to a plane of the locking ring than the second type.

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3. The electrical connector according to claim 2, wherein the second type has a shorter length and a smaller angle than the first type.

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4. The electrical connector according to claim 3, further comprising a third type of the latching fingers, the

third type has a shorter length and a smaller angle than the second type.

5. The electrical connector according to claim 2, wherein the latching fingers extend from an inner side of the locking ring toward a lower side of the plane of the locking ring.
10. The electrical connector according to claim 1, wherein the length of the first type and the length of the second type vary by more than three percent of the length.
15. The electrical connector according to claim 1, wherein the first connector member includes an abutment surface and the latching fingers hold the second connector member against the abutment surface.
20. The electrical connector according to claim 1, further comprising an unlocking member formed to slide adjacent to a surface of the first connector member and formed to engage the latching members to release the latching members from the groove.
25. 9. The electrical connector according to claim 1, wherein the latching fingers are positioned around an annular surface of the locking member, the first type of the

latching fingers are arranged directly across from each other on the annular surface and the second type of the latching fingers are arranged directly across from each other on the annular surface.

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10. An electrical connector, comprising:

a first connector member having a first contact;

a second connector member having a groove and a second contact for electrical connection with the first contact; and

a locking ring disposed on the first connector member, the locking ring having latching fingers that engage the groove when the first connector member and the second connector member are mated to lock the first connector member to the second connector member, the latching fingers being of at least a first type and a second type, the first type being formed at a different angle with respect to a plane of the locking ring than the second type.

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25. The electrical connector according to claim 10, further comprising a third type of the latching fingers, the third type being formed a smaller angle than the second type and the second type being formed at a smaller angle than the first type.

12. The electrical connector according to claim 10, wherein the latching fingers extend from an inner side of the locking ring toward a lower side of the plane of the locking ring.

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13. The electrical connector according to claim 10, wherein the first connector member includes an abutment surface and the latching fingers hold the second connector member against the abutment surface.

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14. The electrical connector according to claim 10, further comprising an unlocking member formed to slide adjacent to a surface of the first connector member and formed to engage the latching members to release the latching members from the groove.

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15. The electrical connector according to claim 10, wherein the latching fingers are positioned around an annular surface of the locking member, the first type of the latching fingers are arranged directly across from each other on the annular surface and the second type of the latching fingers are arranged directly across from each other on the annular surface.

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25 16. An electrical connector, comprising:

 a first connector member having a first contact and an abutment surface;

a second connector member having a second contact for electrical connection with the first contact and a groove; and

a locking ring disposed on the first connector member, the locking ring having latching fingers, the latching fingers being of at least a first type and a second type, the first type having a different length than the second type so that the first type engages the groove when the abutment surface is a first distance from the groove and the second type engages the groove when the abutment surface is a second distance from the groove when the first and second connector members are mated to lock the first connector member to the second connector member.

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17. The electrical connector according to claim 16, wherein the first type is formed at a different angle with respect to a plane of the locking ring than the second type.

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18. The electrical connector according to claim 17, wherein the second type has a shorter length and a smaller angle than the first type.

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19. The electrical connector according to claim 18, further comprising a third type of the latching fingers, the third type has a shorter length and a smaller angle

than the second type and engages the groove when the abutment surface is a third distance from the groove.

20. The electrical connector according to claim 17, wherein
5 the latching fingers extend from an inner side of the locking ring toward a lower side of the plane of the locking ring.
21. The electrical connector according to claim 16, wherein
10 the length of the first type and the length of the second type vary by more than three percent of the length.
22. The electrical connector according to claim 16, wherein
15 the latching fingers hold the second connector member against the abutment surface.
23. The electrical connector according to claim 16, further comprising an unlocking member formed to slide adjacent to a surface of the first connector member and formed to engage the latching members to release the latching members from the groove.
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24. The electrical connector according to claim 16, wherein
25 the latching fingers are positioned around an annular surface of the locking member, the first type of the latching fingers are arranged directly across from each

other on the annular surface and the second type of the latching fingers are arranged directly across from each other on the annular surface.